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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,390	03/31/2000	Lynice S. Spangler	10559/153001/P7987	3458

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EXAMINER

WANG, LIANG CHE A

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 01/16/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/541,390

Applicant(s)

SPANGLER ET AL.

Examiner

Liang-che Alex Wang

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-24 have been examined.
2. In view of the Appeal Brief filed on 11/17/2003, PROSECUTION IS HEREBY REOPENED.
3. To avoid abandonment of the application, appellant must exercise one of the following two options:
 - (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
 - (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published

under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3, 6-8, 10, 13-15, 17, 20, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Aras et al., US Patent Number 5,884,037, hereinafter Aras.

6. Referring to claim 1, Aras has taught an method comprising:

determining whether information scheduled to be broadcast digitally(Figure 14, step 1403) is actually utilizing all bandwidth previously allocated to broadcasting the information (Figure 14, steps 1405-1407); and if not, broadcasting additional information using an unused portion of the previously allocated bandwidth. (Col 2 lines 20-64, the system determined the bandwidth is not fully utilizing (only used 5Mp/s out of total 10Mp/s bandwidth, **not fully utilizing is viewed as the same as not actually utilizing all bandwidth**) so the system is able to allocate the additional bandwidth (2Mp/s) using the unused portion of the previously allocated bandwidth.)

7. Referring to claim 3, Aras has taught an invention as described in claim 1, Aras has further taught the method of claim 1 including determining in real time whether additional information can be broadcast over a portion of the previously allocated bandwidth that is actually unused. (Figure 14, block 1403 determines if the requested bandwidth is less than available bandwidth, and if yes then allow the connection and broadcast the information, if not then deny the request.)

8. Referring to claim 6, Aras has taught an invention as described in claim 1, Aras has further taught the method of claim 1 including determining in real time whether there is any unallocated bandwidth; and, if there is unallocated bandwidth with respect to a

particular timeframe, broadcasting supplementary information to occupy at least a portion of the unallocated bandwidth during the particular timeframe. (Col 10 lines 48-57, the system is able to know if the bandwidth will be available at time t_r , and allow this time frame (times between t_{rs} could be considered as time frames) to be occupied by another client request.)

9. Referring to claim 7, Aras has taught an invention as described in claim 6, Aras has further taught the method of claim 1 including determining in advance of the particular timeframe whether the supplementary information can be broadcast over the unallocated bandwidth. (Figure 17, and Col 10 lines 48-57, connection agent informs the client that the bandwidth is available at t_r . If the connection agent is able to inform the client when the bandwidth is available, the system is able to determine in advance when the bandwidth will be available so the supplementary information can be broadcast over the available (unallocated) bandwidth.)

10. Referring to claim 8, Aras has taught a digital communication system (see title) comprising:

an automated management system (abstract line 1, bandwidth management system is an automated management system,) that controls scheduling of digital broadcasts (Col 10 lines 62-64, the system controls the model to schedule a application at a appropriate time to broadcast.) and is configured to determine whether information scheduled to be broadcast (Col 2 lines 26-27, 5 Mp/s is information to be broadcasted) utilizes all bandwidth previously allocated to broadcast the information (10 Mp/s is the total bandwidth, and 5 Mp/s is previous allocated (conformed) to broadcast the

information,) and if not (Col 2 lines 36-48), to broadcast additional information (2 Mp/s) using an unused portion of the previously allocated bandwidth (using 2 Mp/s out of the unused 5 Mp/s bandwidth.)

11. Referring to claims 10,13-14, Aras has taught an invention as described in claim 8, and claims 10,13-14 encompass the same scope of the invention as that of the claims 3, 6-7.

Therefore, the claims 10,13-14 are rejected for the same reason as the claims 3, 6-7.

12. Referring to claims 15, 17, and 20, claims 15, 17, and 20 encompass the same scope of the invention as that of the claims 1, 3, and 6. Therefore, the claims 15, 17, and 20 are rejected for the same reason as the claims 1, 3 and 6.

13. Referring to claim 21, Aras has taught a digital communication system comprising:

a bandwidth pipe operable to transport digital information; (see abstract)

a monitor to determine bandwidth usage in the bandwidth pipe; (Figure 14, block 1403 provides a monitor to determine the usage in the bandwidth pipe, also see Figure 6.)

a system manager to broadcast additional information if there is available bandwidth in the bandwidth pipe, using an unused portion of the previously allocated bandwidth. (See Figure 14)

14. Referring to claim 23, claim 23 encompasses the same scope of the invention as that of the claims 21. Therefore, the claim 23 is rejected for the same reason as the claim 21.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2, 4, 5, 9-12, 16, 18, 19, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aras in views of Yin et al., US Patent Number 6,442,138, hereinafter Yin.

17. Referring to claim 2, Aras has taught an invention as described in claim 1, Aras has further taught the method of claim 1 further comprising limiting the amount of additional information to a preset limit of bandwidth. (Col 9, lines 53-61)

Aras has not explicitly taught the bandwidth is indicated in percentage.

However, Yin has taught the use of percentage to indicate the total bandwidth allocated, and the total bandwidth available (Col 6 lines 38-44.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Aras such that to use a preset percentage pf the total available bandwidth to be his bandwidth limitation, because both Aras and Yin has taught invention related to bandwidth allocations.

A person with ordinary skill in the art would have been motivated to make the modification to Aras, because percentage is easy for people to read and understand.

18. Referring to claim 4, Aras as modified has taught an invention as described in claim 2, Aras has further taught wherein said broadcasting the portion of the additional information is stopped when the preset percentage is reached, (Col 9, lines 57-61)

19. Referring to claim 5, Aras as modified has taught an invention as described in claim 6, Aras has further taught wherein said broadcasting the portion of the additional

information to be stopped is selected based upon at least one of content provider, bandwidth range and sequence of content provision. (Col 9, lines 57-61, if no bandwidth is available, the connection will not be setup for broadcasting, and content provider (application server) will not be able to broadcast information since there is not enough bandwidth available for broadcasting.)

20. Referring to claims 9, 11 and 12, Aras as modified has taught an invention as described in claim 8. And claims 9, 11 and 12 encompass the same scope of the invention as that of the claims 2, 4 and 5. Therefore, the claims 9, 11 and 12 are rejected for the same reason as the claims 2, 4 and 5.

21. Referring to claims 16, 18 and 19, Aras as modified has taught an invention as described in claim 15. And claims 16, 18 and 19 encompass the same scope of the invention as that of the claims 2, 4 and 5. Therefore, the claims 16, 18 and 19 are rejected for the same reason as the claims 2, 4 and 5.

22. Referring to claim 22, Aras as modified has taught an invention as described in claim 21. And claim 22 encompasses the same scope of the invention as that of the claim 2. Therefore, claim 22 are rejected for the same reason as the claim 2.

23. Referring to claim 24, Aras as modified has taught an invention as described in claim 23. And claim 24 encompasses the same scope of the invention as that of the claim 2. Therefore, claim 24 are rejected for the same reason as the claim 2.

Response to Arguments

24. Applicant's arguments with respect to claims 2, 4, 5, 9, 11, 12, 16, 18, 19, have been considered but are moot in view of the new ground(s) of rejection.
25. In response to applicants argument that "Aras teaches nothing about the actual, that is Aras does not teach determining whether the information that is scheduled to be broadcast is actually using the amount of the bandwidth that was allocated", "Aras would attempt to determine the actual bandwidth that will be used... this is the estimate that is used."

This is not found persuasive because, in applicant's claim "determining whether information **scheduled** to be broadcast digitally is **actually** utilizing all bandwidth previously allocated..." The term "scheduled" which sets the invention in the condition of "**estimation**", and the word "**actually**" is an adverb that is describing a utilizing action is actually being done.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (703) 305-8159. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

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28. Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 305-9000.

Liang-che Wang
January 5th, 2004

LCW

Hosain Alam
HOSAIN ALAM
SUPERVISORY PATENT EXAMINER